

### REMARKS

New claims 64-70 are added. Support for the new claims is provided by the originally-filed application at, for example, pages 7-11 and Fig. 7.

Claims 40-47 and 51-55 are allowed.

Claims 58 and 62 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

Claims 48-50 are rejected under 35 U.S.C. §102(b) as being anticipated by Dennison (U.S. Patent No. 5,637,525).

Regarding the §112 rejection against claim 58, the Examiner only refers to Figs. 1-3 of the originally-filed application to allege a lack of written description (pg. 2 of paper no. 20051108). The Examiner is respectfully reminded that "it is now well accepted that a satisfactory description may be in the claims **or in any other portion of the originally filed specification.**" MPEP §2163 I. (8<sup>th</sup> ed., revision no. 3, vol. 2) (emphasis added). That is, the Examiner must consider the entire disclosure. Applicant submits that one exemplary embodiment of the invention which provides written description for claim 58 includes, for example, Fig. 7 and corresponding description of the originally-filed application.

For example, claim 58 depends from independent claim 48, and claim 48 recites a conductive line having a conductive portion and silicon nitride material over the conductive portion, and silicon oxide material over the silicon nitride material, and forming encapsulation material over the conductive line. Claim 58 recites wherein the encapsulation material comprises nitride material. Accordingly, the subject matter of claim 58 has an order of materials that includes, nitride material (encapsulation) over the conductive line which comprises silicon oxide material over the silicon nitride material over the conductive portion. Referring to Fig. 7, Fig. 7 illustrates an exemplary conductive line

50 wherein the corresponding description states it can be used as an alternate to conductive line 24 of Figs. 1-5 (see, line 23 of page 10 to line 2 of page 11 of the originally-filed application). The exemplary structure of Fig. 7 provides a nitride encapsulation material 56 over oxide layer 54 over nitride layer 52 over conduction portions 32 and 30. Accordingly, at least exemplary structure of Fig. 7 provides written support for the order of materials as positively recited by claim 58 (and independent claim 48). Therefore, the originally-filed application provides a written description for claim 58, and therefore, the §112 rejection against claim 58 is inappropriate and should be withdrawn.

Regarding the §112 rejection against claim 62, claim 62 recites wherein the encapsulation material comprises nitride material. Independent claim 50 (from which claim 62 depends) recites forming a conductive word line over a substrate, forming a silicon nitride layer over the word line, forming a silicon oxide layer over the silicon nitride layer, and forming encapsulation material over the silicon oxide layer. Accordingly, the order of materials is nitride material (encapsulation) over the silicon oxide layer over the silicon nitride layer over the conductive word line. The exemplary structure of Fig. 7 provides a nitride encapsulation material 56 over oxide layer 54 over nitride layer 52 over conduction portions 32 and 30. Accordingly, at least exemplary structure of Fig. 7 provides written support for the order of materials as positively recited by claim 62 (and independent claim 50). Therefore, the originally-filed application provides a written description for claim 62, and therefore, the §112 rejection against claim 62 is inappropriate and should be withdrawn.

Regarding the rejection against independent claim 48 based on Dennison, the Examiner continues to rely on a single structure disclosed by Dennison to allege a teaching to two positively recited structures of claim 48. Independent claim 48 recites forming a conductive line having silicon oxide material over the silicon nitride material, and forming

encapsulation material over the conductive line. However, to allegedly teach the two positively recited materials of silicon oxide material and encapsulation material, the Examiner improperly relies on Dennison's teachings to an insulating dielectric layer 30 wherein a preferred material is BPSG (col. 3, lns. 50-60). The Examiner states: "silicon oxide material (30) over the silicon nitride material forming encapsulation material over the conductive line" (sic) (pg. 3 of paper no. 20051108). That is, the Examiner is improperly alleging the BPSG material (30) of Dennison teaches the positively recited silicon oxide material **and** teaches the positively recited encapsulation material.

The Examiner first made this improper rejection in his previous office action, and Applicant referred to Federal Circuit and MPEP authority to demonstrate the inappropriateness of the Examiner's rejection. The Examiner was respectfully reminded that the Federal Circuit Court has provided requirements of a §102 anticipation. "A claim is anticipated only if each and every element as set forth in the claim is found ... in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP §2131 (8<sup>th</sup> ed., revision no. 3, vol. 2). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP §2131 (8<sup>th</sup> ed., revision no. 3, vol. 2). The Examiner has not found each and every element and has not shown the identical invention in as complete detail as positively recited in claim 48, and therefore, pursuant to this authority, the anticipation rejection must fail. Claim 48 is allowable.

However, in reply to Applicant's clear demonstration of the inappropriateness of this rejection against claim 48, the Examiner states the claimed invention "does not distinctively claim the actual position of each material the steps and orders how each materials formed (sic). Claims are given their broadest reasonable interpretation in light of the supporting

disclosure.” (first four lines of page 6 of paper no. 20051108). However, even assuming the broadest interpretation, the “actual position of each material” is not the test for anticipation, “the steps” is not the test for anticipation, and the “order of how each material is formed” is not the test for anticipation. The test for anticipation is provided by the Federal Circuit above, and the Examiner’s three alleged tests has absolutely no relevance to the test provided by the Federal Circuit. The Examiner has not found each and every element of claim 48 and has not shown the identical invention in as complete detail as positively recited in claim 48, pursuant to the Federal Circuit authority.

Even assuming for argument’s sake that the Examiner can distort the test for anticipation as presented (which Applicant strongly contests), the argument still fails. When considering all the limitations of claim 48, the Examiner’s reasoning for the anticipation is inconsistent and illogical. The Examiner is reminded that claim 48 recites forming a conductive line having ... silicon oxide material and forming encapsulation material over the conductive line. That is, as explained previously, the encapsulation material is over the silicon oxide material. Since the Examiner relies on the single Dennison BPSG (30) to allegedly teach the encapsulation material over the silicon oxide material as positively recited, the Examiner’s reasoning results in the illogical statement that the Dennison BPSG (30) is over the Dennison BPSG (30). That is, the BPSG material is over itself. Respectfully, this reasoning is inconsistent, and of course, logically fails. Accordingly, when using the Examiner’s reasoning and reliance upon the specific teachings of Dennison for establishing the anticipation rejection, it is clear that positively recited limitations of the claim is not disclosed nor suggested by the prior art. Claim 48 is allowable.

Claims 49, 56-61 and 64-67 depend from independent claim 48, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well

as for their own recited features which are not shown or taught by the art of record.

For example, dependent claim 57 recites wherein the etching comprises *exposing the conductive portion of the conductive line*. The **etching** is previously defined by independent claim 48 which recites **in a common masking step, etching a doping window opening over a substrate active area adjacent the conductive line**. That is, **in the common masking step, both the conductive portion of the conductive line is exposed and a doping window opening is formed**. However, Dennison teaches a doping window opening is formed in Fig. 4 and then a conductive portion of a conductive line is exposed in Fig. 8 which is several method steps after the Fig. 4 step of forming the doping window opening. Accordingly, it is inconceivable that Dennison teaches or suggests in a common masking step that both the conductive line is exposed and the window opening formed. Therefore, Dennison fails to teach or suggest the positively recited limitations of claim 57, and therefore, claim 57 is allowable.

Dependent claim 58 recites wherein the encapsulation material comprises nitride material. However, this claim depends from independent claim 48 wherein the Examiner has addressed the positively recited encapsulation material as being taught by BPSG material 30 of Dennison. Accordingly, it is inconceivable that Dennison teaches or suggests the encapsulation material comprises nitride material when the Examiner relies on the BPSG layer 30 of Dennison to teach the recited encapsulation material, and BPSG is not nitride material. The rejection is inappropriate and claim 58 is allowable.

Dependent claim 59 recites wherein the encapsulation material comprises material other than oxide material. However, this claim depends from independent claim 48 wherein the Examiner has addressed the positively recited encapsulation material as being taught by BPSG material 30 of Dennison. Accordingly, it is inconceivable that Dennison teaches or suggests the encapsulation material comprises material other than oxide

**material** when the Examiner relies on the BPSG layer 30 of Dennison to teach the recited encapsulation material. The rejection is inappropriate and claim 59 is allowable.

Dependent claim 61 recites wherein the encapsulation material and the silicon oxide material comprise different materials. However, this claim depends from independent claim 48 wherein the Examiner has addressed the positively recited encapsulation material as being taught by BPSG 30 of Dennison. Accordingly, it is inconceivable that Dennison teaches or suggests the encapsulation material **and** the silicon oxide material **comprise different materials** when the Examiner relies upon the same BPSG material 30 as allegedly disclosing the encapsulation material **and** the silicon oxide material as positively recited. The rejection is inappropriate and claim 61 is allowable.

Independent claim 50 recites forming encapsulation material over the silicon oxide layer, the silicon nitride layer and the conductive word line, and the **encapsulation material forming sidewall spacers over the conductive word line**. The Examiner relies on two separate and distinct structures of Dennison to allegedly teach the single positively recited encapsulation material. The Examiner originally relies on Dennison's teaching to a photoresist 32 to teach the recited *forming encapsulation material over the silicon oxide layer, the silicon nitride layer and the conductive word line* (pg. 4 of paper no. 20051108). The Examiner then states "the encapsulation material forming sidewall spacers 22 over conductive word-line 18", that is, referring to another Dennison structure of nitride spacers 22 to allege a teaching to encapsulation material forming sidewall spacers as positively recited. The nitride spacers 22 of Dennison are **completely separate and distinct structures** from the photoresist 32 for which the Examiner originally relies as teaching the positively recited encapsulation material (pg. 4 of paper no. 20051108).

In fact, Figs. 3 and 4 of Dennison include photoresist 32, and the photoresist 32 is clearly shown entirely and completely elevationally above and spaced from the nitride

spacers 22. Moreover, photoresist 32 is not nitride material as the spacers 22 of Dennison are taught to be, and therefore, this is further evidence that the photoresist 32 and nitride spacers 22 are not the **encapsulation material** as positively recited. Accordingly, in no fair or reasonable interpretation does photoresist 32 (for which the Examiner relies on as the encapsulation material) **form sidewall spacers over the conductive word line** as positively recited by claim 50. Therefore, claim 50 is allowable.

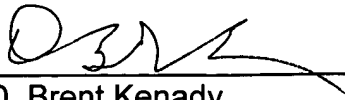
Claims 62-63 and 68-70 depend from independent claim 50, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well as for their own recited features which are not shown or taught by the art of record.

Regarding the rejections against dependent claims 58-61, the Examiner only refers to Figs. 1-8 to allegedly teach the positively recited limitations of the respective claims without pointing to any specific teachings from the art. Applicants respectfully assert that the Office Action clearly fails the regulatory mandate of 37 CFR 1.104(c)(2) requiring that "the pertinence of each reference, if not apparent, must be clearly explained." Applicant demonstrated above that these claims had no teaching in the art to the positively recited limitations of the claims. Accordingly, Applicants respectfully assert that the Office Action clearly fails the regulatory mandate of 37 CFR 1.104(b) that "the examiner's action will be complete as to all matters." The rejections are inappropriate and should be withdrawn. Applicant requests clarification of any rejections against claims 58-61 in a non-final action if such claims are not allowed.

This application is now believed to be in immediate condition for allowance, and action to that end is respectfully requested. If the Examiner's next anticipated action is to be anything other than a Notice of Allowance, the undersigned respectfully requests a telephone interview prior to issuance of any such subsequent action.

Respectfully submitted,

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